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correlation with the morphology by CARTO/CT/MR existed and to assess its influence on device implantation difficulty.
Results: Our study demonstrates the existence of 3 different types of LAA ostium take-off: Type I shows a superior and anterior os take-off, with a wide and short left lateral ridge (LLR) (53%). Type II shows the ostium is similar to type I but the LLR is long and narrow, causing the entrance vestibule to the LAA ostium (limbus of the LAA) to be very well defined (32%). Type III (15%), shows a lower and more posterior LAA take-off with a sharp separation between the LAA and the left PV ostia; the LAA ostium hardly shows a limbus and is located very close to the LA floor, making its cannulation extremely difficult leading to greater complexity in the implantation of the device (procedure time: 91.6±37.6 vs 119.6±0.57 p:0.015).

Morphological data of the left atrium and type of left atrial appendage

Postmortem specimens (Measurements in mm)	Type I	Type II	Type III	P value
LAA Limbus	4.5±0.5	8.5±0.5	2.5±0.5	0.002
LLR length	21±3	25±2.5	28±2	0.001
LLR width	6.5±1	2±0.5	3.5±1	0.001
Distance between LAA ostium and Mitral Valve	7± 1.5	11.5± 2	4± 1.5	0.001

LLR:Left lateral ridge

Conclusion: The use of CARTO/CT/MR could be a useful means of defining different types of LAA take-offs, which could have prognostic and strategic implications for the implantation of LAA closure devices.

TCT-720

Percutaneous Closure of the Left Atrial Appendage with the Amplatzer Cardiac Plug:Initial Latin American Experience

Aníbal Agustín Damonte[1], Costantino Costantini[2], Marcio Montenegro[3], Carlos Pedra[4], Alejandro Martinez[5], Fabio Brito[6], Jose Condado[7], Daniel Aguirre[8], Horacio Faella[9], Leon Valdivieso[10], Miguel Ballarino[11], Alejandro Fernandez[12], Fernando Cura[13]
[1]Interventional Cardiology, Instituto Cardiovascular de Rosario, Rosario, Argentina; [2]Hospital Cardiológico Costantini, Curitiba, Brazil; [3]Instituto Estadual de Cardiologia, Rio de Janeiro, Brazil; [4]Instituto Dante Pazzanese, Sao Paulo, Brazil; [5]Universidad Católica, Santiago, Chile; [6]Hospital Albert Einstein, Sao Paulo, Brazil; [7]Hospital Perez Carreño, Caracas, Venezuela; [8]Clínica Alemana, Santiago, Chile; [9]FLENI, Buenos Aires, Argentina; [10]Fundación Favaloro, Buenos Aires, Argentina; [11]Hospital Privado, Córdoba, Argentina; [12]Hospital Italiano, Buenos Aires, Argentina; [13]Instituto Cardiovascular de Buenos Aires, Buenos Aires, Argentina

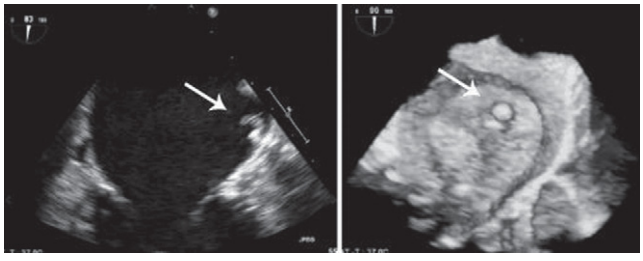
Background: Atrial fibrillation (AF)is the most common cardiac arrhythmia and a major cause of morbidity and mortality secondary to cardioembolic stroke. In patients with non valvular AF 90% of intracavitary thrombi form in the left atrial appendage (LAA). Percutaneous closure of the LAA has emerged as a potential alternative to anticoagulation therapy for the prevention of cerebrovascular events in patients with AF and a contraindication or difficulties for oral anticoagulation. This study describes the feasibility and in hospital results of the transcatheter closure of the LAA with the new Amplatzer Cardiac Plug (ACP) in an initial Latin American experience.
Methods: Physician initiated retrospective registry, including all consecutive patients with AF at high risk for cardioembolic stroke, from different Latin American hospitals that were treated with the ACP, from August 2009 to April 2011. The procedures were performed under general anesthesya, and transesophageal ecocardiography (TEE) and fluoroscopic guidance.
Results: 40 patients were included. Age 72±8.7 years;male 70%; CHADS2 score 3.15±1.1 LAA neck diameter was 20.3±3.8 mm by TEE and 22.6±3.2 by angiography. LAA occlusion was attempted and successfully achieved in all 40 patients, and in 2 cases, simultaneous closure of the LAA and PFO was performed. The implanted device size was 25±2.9 mm. There were serious in hospital complications in 3 patients (7.5%). 1 patient experienced device embolization that required surgical retrieval, and 2 patients presented serious pericardial effusion. There were not in hospital deaths, stroke, or myocardial ischemia.
Conclusion: In this initial experience, percutaneous closure of the LAA with the ACP in patients with AF at high risk of stroke was feasible, with a high technical success, and a complications rate similar to previous reports with this and other devices during the learning phase of the procedure.

TCT-721

Thrombi on the Amplatzer Cardiac Plug after LAA Occlusion: Evaluation of Potential Echo Risk Factors

Björn Plicht, Philipp Kahlert, Hagen Kälsch, Thomas Buck, Raimund Erbel, Thomas F Konorza
Cardiology Clinic, West-German Heart Center, Essen, Germany

Background: Percutaneous left atrial appendage (LAA) occlusion is a novel approach for stroke propyhaxis in patients with atrial fibrillation (AF) and contraindications for oral anticoagulation. The Amplatzer Cardiac Plug (ACP) device consists of a lobe anchored in the LAA with a connected disk shielding the LAA ostium. In 6 patients postinterventional thrombus formation on the disk was found. We analyzed pre interventional echo parameters as possible risk factors.
Methods: LAA occlusion was performed in 34 consecutive AF patients (CHADS2 score ≥2) under concious sedation. Post interventional dual antiplatelet therapy was initiated according to manufacturer's instructions of use. Transthoracic (TTE) and transesophageal echo (TEE) were performed pre interventionally, pre discharge, after 3 and 6 months. Ejection fraction (EF), left atrial volume index (LAVi), LAA velocity, spontaneous echo contrast (SEC, scored 0-4) and transmitral gradient (TMG) were analyzed.
Results: In 36 procedures 34 ACP were implanted successfully. 2 ACP could not be placed due to an inappropriate anatomy. Mean occluder size was 24.1 ± 3.1 mm. In 3 patients thrombus was detected in the pre discharge TEE, in 3 further patients after 3 months. Mean EF was 50.6 ± 11.4 % in the non-thrombus vs. 39.7 ± 10.6 % in the thrombus group (p = 0.039, significant). LAVi was 46.9 ± 20.8 vs. 56.6 ± 14.2 ml/m2 (p = 0.285), LAA velocity was 51.3 ± 25.1 vs. 36.8 ± 17.7 cm/s (p = 0.194), SEC was 1.3 ± 0.9 vs. 1.5 ± 0.5 (p = 0.632) and TMG was 1.9 ± 2.0 vs. 1.4 ±0.5 mmHg (p = 0.568).



Thrombus formation after implantation oft he ACP into the LAA (left 2D, right RT3D TEE).

Conclusion: Thrombus formation on the new ACP device is a serious complication that should lead to caution. EF was significantly lower in the thrombus group and could be therefore identified as a risk factor under the dual antiplatelet regime.

TCT-722

Single-Centre Experience of Left Atrial Appendage Closure. Role of Carto/CT/MR in the Selection of Device Size

José Ramón López-Mínguez, Reyes González, Concepción Fernández, Manuel Doblado, María E Fuentes, Javier Eldoayen, María Yuste, Juan M Nogales, Antonio Merchán
Cardiology, Infanta Cristina University Hospital, Badajoz, Spain

Background: Closure of the left atrial appendage (LAA) is seen as an attractive therapeutic option for nonvalvular atrial fibrillation patients with contraindications to taking oral anticoagulants. Proper device size selection is crucial to ensuring proper implantation and avoiding multiple attempts which, in turn, increase the risk of complications. The object of this paper is to present our results and determine the information that can be contributed by the use of the Carto system using MR or CT images, with particular emphasis on the aspect of size selection.
Methods: The first 30 patients in our series which underwent implantation of the ACP device were studied. After the first 5 cases, Carto RM was performed on 10 patients and Carto CT on the following 15. The measurements obtained by transoesophageal echocardiography (TEE) and angiography (A) were compared with those obtained by CARTO/CT/MR (C). The influence of the three techniques on the correct selection of the final device size was assessed.
Results: In only one case the device could not be implanted and in only three cases it was necessary to change the final device size selected. There were not cardiac complications. The superoinferior (SI) axis was usually found to be longer than the anteroposterior one (in 22 out of 25) (20.3±3.5mm vs 18.02±2.9mm) and in most cases, it determined device size. In only 33.3% of cases there was found to be agreement between all three measurement techniques, A, TEE and C, leading to an accurate device size selection. Measurements using C were definitive for the selection of the ACP device in 87.5% of cases, versus 75%, for A and 45.8% for TEE. In 20.8% of cases (5/24) C correctly influenced the change in device size selected using the other techniques. Moreover, it offered information on the orientation of the LAA, thus helping to establish the implantation strategy. Mean measurement of implanted ACP device was 22.26±3.22 mm.
Conclusion: Performing CARTO/CT/MR assists in the implantation of the ACP device and reduces the need for changing device and, indirectly, potential complications.

TCT-723

Percutaneous Pericardiocentesis Versus Surgical Pericardial Drainage In The Treatment Of Symptomatic Pericardial Effusions: Recurrence And Complication Rates

A. Garvey Rene[1], Yehuda E Paz[1], Adam J Saltzman[1], Philip Green[1], Ahmed Hassanin[2], George Dangas[3], Leroy Rabbani[1]
[1]Columbia University College of Physicians and Surgeons, Division of Cardiology, New York, NY; [2]Cardiovascular Research Foundation, New York, NY; [3]Mount Sinai School of Medicine, Division of Cardiology, New York, NY

Background: Since the optimal treatment for symptomatic pericardial effusion has

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